

*The Heston Artillery
Observation Post*

ARMY CROW'S NEST

THESE first air-to-air photographs of the Heston A.2/45 A.O.P. bring out particularly well the unusual layout of this interesting specialized aircraft. As the result of present economies, the Army is unlikely to place an order for the time being, but two of the four machines originally ordered—the prototype here depicted and the second now nearing completion—will be built, tested and developed, and then the design will be held in readiness for immediate production should a need arise. The "A.2" is fortunately of a type less likely to grow obsolete in the next few years than most military aircraft.

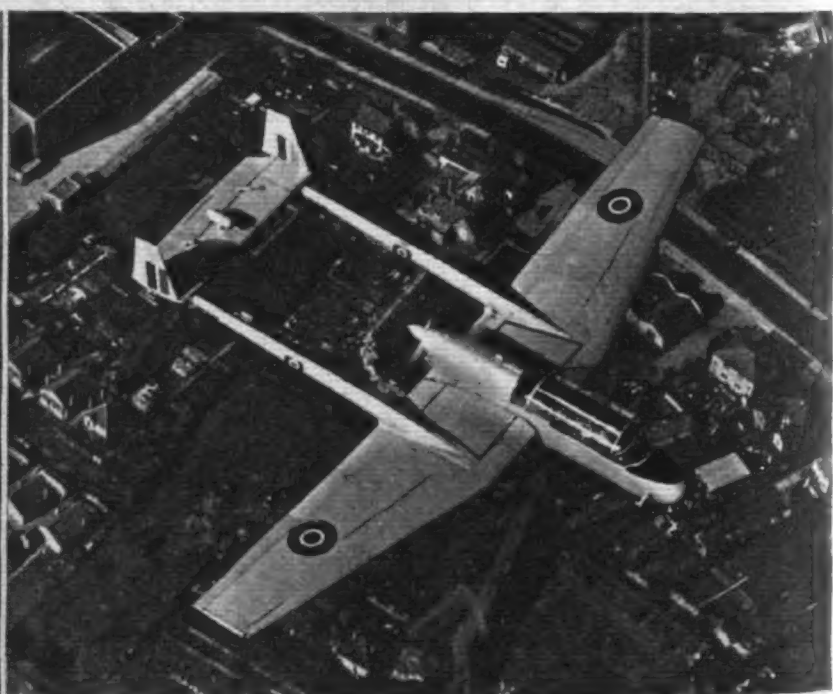
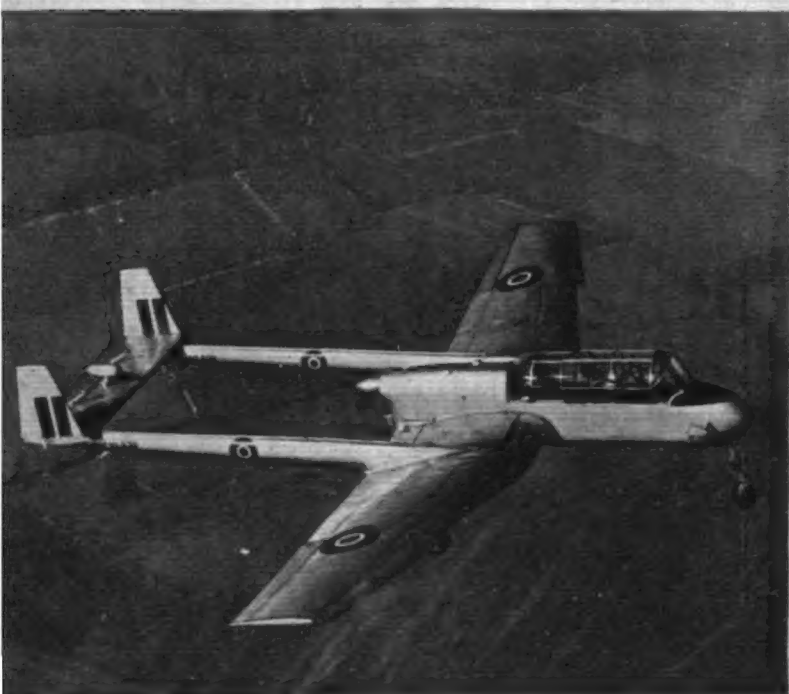
In order to carry radio and other equipment demanded in the Army specification, and also an observer (whose precise function is somewhat obscure, unless it is as pilot's companion and rear lookout), the A.O.P. has been made larger than previous aircraft fulfilling a similar function. Efforts might be made to reduce the size in any later specification. The span is 44ft, the length 34ft, and the wing area 274 sq ft.

Cooling during ground running was at first something of a problem with the Gipsy Queen 33 pusher installation, particularly as the A.O.P. must be suitable for tropical as well as Arctic conditions. An early extractor-fan system around the spinner has now been abandoned, and the D.H. c.s. airscrew itself draws air satisfactorily through

the outlet grill and thereby causes adequate circulation. Air enters through a scoop below the nacelle.

Development flights are proceeding with Mr. Ralph Mundy at the controls, and complete stalling tests have recently been commenced. An unexpected and unwelcome characteristic—the need to hold-up one wing and apply rudder towards it as speed was reduced towards the stall—was eventually traced by tufts to slight damage to the inside surface of one of the slats. The fault has been rectified, and the aircraft is handling very well indeed.

These and other photographs were taken recently by one of *Flight's* photographers installed in the rear seat of a Tiger Moth. Taking off more or less together from Heston airfield (now closed to traffic) the A.O.P. and Tiger Moth climbed side by side gaining height until the London haze was topped at 2,500ft. The A.O.P. appeared to climb comfortably at reduced power at 65 to 70 m.p.h. Such is the approach speed and rate of descent of the A.O.P. that for the photographs with flaps down it was necessary to throttle the Tiger right back and to put the nose well down from a speed of about 55 m.p.h. By the time the photograph had been taken the Tiger, gliding at 70 m.p.h., was running away from the A.O.P. even though the A.O.P.'s Gipsy Queen could be heard buzzing at something approaching half-power.



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